

APPENDIX C

EVALUATION OF DATA QUALITY OBJECTIVES ATTAINMENT

| Activity | Objectives | Action | Objective Attained? | Recommendations |
|--|---|--|---|--------------------------|
| Objective 1: Meet TCEQ Requirements for Site Closure | | | | |
| Attainment of Risk Reduction Standard Number 1: Closure/Remediation to Background | | | | |
| | Remove all hazardous and nonhazardous waste and waste residues and contaminated design and operating system components such as liners, leachate collection systems, and dikes from the unit or area of the unauthorized discharge. For remediation of media that have become contaminated by releases from a waste management unit or by other unauthorized discharge of hazardous or nonhazardous waste, the contaminated media must be removed or decontaminated to cleanup levels specified in this section (30 TAC 335.554(b) and (c)). | Due to the sand and lead shot pile, metals are the only contaminants of concern. There is no history of waste disposal or any disturbance at the site. | Yes. Contaminated soils were excavated and transported to an approved off-site disposal facility. | Site closure under RRS1. |

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| | <p>Determine compliance with RRS1 closure requirements by comparing to background as represented by results of analyses of samples taken from media that are unaffected by waste management or industrial activities. If the practical quantitation limit (PQL) is greater than background, then the PQL rather than background shall be used as the cleanup level provided that the person satisfactorily demonstrates to the executive director that lower levels of quantitation of a contaminant are not possible (30 TAC 335.554(d)).</p> | <p>No waste was observed at the site. Soils affected by lead shot were removed to levels in compliance with RRS1 closure requirements.</p> | <p>Yes. Analytical results indicate that the area is in compliance with RRS1 closure requirements.</p> | <p>Site closure under RRS1.</p> |
| | <p>Attainment of cleanup levels shall be demonstrated by collection and analysis of samples from the media of concern (30 TAC 335.554(e)).</p> | <p>Samples were taken prior to and after excavation of affected soils.</p> | <p>Yes. The site does not contain waste or waste residue and the analytical results indicate that the area is in compliance with RRS1 closure requirements.</p> | <p>Site closure under RRS1.</p> |

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| Objective 2: Meet Requirements of 3008(h) Order for RFI | | | | |
| RFI Workplan Requirements | | | | |
| Field Sampling <i>(Detailed listing of methods and procedures are provided in project plans which are incorporated by reference.)</i> | Conduct field sampling in accordance with procedures defined in the project work plan, SAP, QAPP, and HSP. | All field sampling was conducted in accordance with applicable project procedures. | Yes. | NA |
| Facility Investigation | | | | |
| Characterization of Environmental Setting - Hydrogeology (B.3.A.1) | Evaluate hydrogeologic conditions at the site. | Shallow groundwater was not encountered during the soil gas survey or geophysical investigation at the site. Groundwater of the Trinity Aquifer is being addressed through the Groundwater Investigation. | NA | NA |
| Characterization of Environmental Setting- Soils (B.3.A.2) | Characterize soils in accordance with USCS soil classification system (B.3.A.2(a)). | Soil types at the site are based on the SCS Bexar County Soil Survey (USDA, 1991). Crawford and Bexar Stony soils occur at AOC-46. | Yes. | NA |
| | Determine soil pH (B.3.A.2(e)). | The pH of each of the soil types evaluated as part of the background metals concentration study was determined through laboratory analysis. According to those analyses, the pH of Crawford and Bexar Stony soils is 7.89. | NA | NA |
| | Determine moisture content (B.3.A.2(g)). | The moisture content of each sample was analyzed. Moisture content values are provided in laboratory analytical packages. | NA | NA |

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| Characterization of Environmental Setting – Surface Water and Sediment (B.3.A.3) | Characterize marshes, creeks, wetland areas, or ditches at the site. | A tributary of Salado Creek, an intermittent creek, runs to the east of AOC-46. Although no samples were collected in the dry creek bed, no sampling is considered necessary based on the history of the site and its distance from the creek. | Yes. | NA |
| Source Characterization (B.3.B) | Identify the source area (B.3.B.1). | The site consisted of an area with a stockpile of intermixed sand and lead shot. | NA | NA |
| | Identify the location of the unit/disposal area (B.3.B.2(a)). | There is no history of waste storage or disposal at AOC-46. | NA | NA |
| | Identify the type of unit/disposal area (B.3.B.2(b)). | There is no history of waste storage or disposal at AOC-46. | NA | NA |
| | Identify design features (B.3.A.2(c)). | Information regarding design features was obtained during the Environmental Assessment (ES, 1992) and through visual observation during the field investigation. | Yes. | NA |
| | Identification of past and present operating practices, period of operation, age of unit/disposal area, and method used to close the unit/disposal area (B.3.B.2(d), (e), (f), and (h)). | All known information regarding these items is provided in Section 1.1 and in the current conditions report. This information is from the records review, interviews, and visual observations. | Yes, based on available data. | NA |
| | Determine general physical conditions of the site (B.3.B.2(g)) | The general physical condition of the site was determined during the field investigation. This information is presented in Section 1 and in the Current Conditions Report. | Yes. | NA |

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| | Identify waste characteristics, including type of waste placed in the unit, physical and chemical characteristics of the wastes, and migration and dispersal characteristics of the waste (B.3.B.3). | There is no history of waste storage or disposal at AOC-46. | NA | NA |
| Contamination Characterization – Groundwater (B.3.C.1) | Characterize the vertical and horizontal extent of groundwater contamination. | Shallow groundwater was not encountered during investigations at the site. Groundwater of the Trinity Aquifer is being addressed through the Groundwater Investigation. | NA | NA |
| Contamination Characterization – Soil (B.3.C.2) | Determine vertical and horizontal extent of contamination (B.3.C.2(a)). | Contamination was limited to metals resulting from the lead shot collected at the site. | Yes. | NA |
| | Describe soil properties (B.3.C.2(c)). | See “Characterization of Environmental Setting – Soils” above. | Yes. | NA |
| | Identify the direction of contaminant movement (B.3.C.2(d)). | No actions taken based on low contaminant levels detected. | NA | NA |
| | Extrapolate future contaminant movement (B.3.C.2(e)). | No actions taken based on low contaminant levels detected. | NA | NA |

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| | Implement a soil boring investigation to determine the extent of soil contamination. Soil gas monitoring will be performed during drilling of all borings. Laboratory analysis of borings for contaminants of potential concern will be performed on soils at depths where either visual contamination is evident, or soil gas concentrations indicate contamination. All boreholes shall be properly abandoned. | Due to the lack of any contaminant source areas and low contaminant levels, no soil boring investigation is necessary at AOC-46. | NA | NA |
| | Prepare a map of all areas included in the investigation (B.3.C.2(i)). | Figures included in this report show all areas included in the investigation. | Yes. | NA |
| | All reporting limits should be below regulatory criteria. | RLs were approved by TNRCC on October 5, 1999. RLs are considered RRS1 standards for all analytes except metals. The background values from the Second Revision to the Evaluation of Background Metals Concentrations in Soils and Bedrock (Parsons, February 2002) were used as RRS1 comparison criteria for metals. | Yes. | NA |
| | Perform all analyses in accordance with the AFCEE QAPP. | All analyses were performed in accordance with the AFCEE QAPP. | Yes. | NA |
| | | All analyses were performed in accordance with the AFCEE QAPP. | NA | NA |

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| Contaminant Characterization – Sediment and Surface Water (B.3.C.3) | Conduct a surface water and sediment investigation to characterize contamination resulting from releases at the facility. | A tributary of Salado Creek runs east of AOC-46. In the vicinity of CSSA, Salado Creek and its tributaries only contain water during and shortly after heavy precipitation. Therefore, surface water was not sampled as part of the AOC-46 investigation. Sampling of sediments in association with the AOC-46 investigation is not warranted. | NA | NA |
| Potential Receptors (B.3.D). | Collect the information necessary to describe the human populations and environmental systems that are susceptible to contaminant exposure from the Facility. | Information regarding receptors is provided in the Risk Assessment Technical Approach Document (Volume 1-6). In addition, the Well Research Report identifies private groundwater users within 0.25-mile and public water suppliers within 0.5-mile of CSSA. | Yes. | NA |